AMENDMENTS TO THE CLAIMS

The following is a complete, marked up listing of revised claims with a status identifier in parentheses, underlined text indicating insertions, and strikethrough and/or double brackets indicating deletions.

Listing of the Claims:

1. (Currently Amended) An emissive plastic optical fiber comprising an integrally formed core and clad, wherein at least one of the core and the clad being formed in an opaque phase by polymer phase separation,

further wherein a diameter of the emissive plastic optical fiber ranges from 0.001 μm - 10 cm and the fiber is formed by heat drawing of a preform for the plastic optical fiber.

2. (Original) The emissive plastic optical fiber according to claim 1, wherein the core has a refractive index identical to or less than the clad.

3. (Original) The emissive plastic optical fiber according to claim 1, wherein the clad is formed in an opaque phase, and the core is formed in a transparent phase.

4. (Withdrawn) A method for fabricating an emissive plastic optical fiber, comprising the steps of:

adding a clad reactant including at least one monomer or a prepolymer to a reactor, and polymerizing the clad reactant with rotation of the reactor to form a clad;

adding a core reactant including at least one monomer or a prepolymer to the reactor, and polymerizing the core reactant with rotation of the reactor to form a core and to complete the fabrication of a preform for a plastic optical fiber, the core reactant having a refractive index substantially identical to or lower than that of the clad reactant; and

thermally drawing the preform;

wherein at least one of the clad reactant and the core reactant is mixed with a monomer for phase separation.

5. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 4, wherein the reactor is a cylindrical reactor or a cavity-preventing type reactor.

6. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 4, wherein the monomer is selected from the group consisting of methylmethacrylate, benzylmethacrylate, phenylmethacrylate, 1-methylcyclohexylmethacrylate, cyclohexylmethacrylate, chlorobenzyl-methacrylate, 1-phenylethylmethacrylate, 1,2-diphenylethylmethacrylate, diphenylmethylmethacrylate, furfuryl methacrylate, 1-phenylcyclohexylmethacrylate, pentachlorophenylmethacrylate, pentabromophenylmethacrylate, styrene, TFEMA (2,2,2-trifluoroethylmethacrylate), TFPMA (2,2,3,3-tetrafluoropropylmethacrylate), PFPMA (2,2,3,3,3-pentafluoropropylmethacrylate), HFIPMA (1,1,1,3,3,3-hexafluoroisopropylmethacrylate), HFBM (2,2,3,4,4,4,-hexafluorobutylmethacrylate), HFBMA (2,2,3,3,4,4,4-heptafluorobutylmethacrylate) and PFOM (1H,1H-perfluoro-n-octylmethacrylate).

7. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 4, wherein the monomer for phase separation is selected from the group consisting of trifluoroethylmethacrylate, vinylidenefluoride, styrene, and methyl methacrylate.

8. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 4, wherein the reactant further includes a thermal polymerization initiator and/or a photopolymerization initiator and a chain transfer agent.

9. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 8, wherein the thermal polymerization initiator is at least one compound selected from the group consisting of 2,2'-azobis(isobutyronitrile), 1,1'-azobis(cyclohexanecarbonitrile), 2,2'-azobis(2,4-dimethylvaleronitrile), 2,2'-azobis(methylbutyronitrile), di-tert-butyl peroxide, lauroyl peroxide, benzoyl peroxide, tert-butyl peroxide, azo-tert-butane, azo-bis-isopropyl, azo-normal-butane and di-tert-butyl peroxide.

10. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 8, wherein the photopolymerization initiator is at least one compound selected from the group consisting of 4-(para-tolylthio)benzophenone, 4,4'-bis(dimethylamino)benzophenone, 2-methyl-4'-(methylthio)-2-morpholino-propiophenone, 1-hydroxy-cyclohexyl-phenyl-ketone, 2-hydroxy-2-methyl-1-phenyl-propan-1-one, benzophenone, 1-[4-(2-hydroxyethoxy)-phenyl]-2-hydroxy-2-methyl-1-propan-1-one, 2-benzyl-2-methylamino-1-(4-morpholinophenyl)-butanone-1, 2,2-dimethoxy-1,2-diphenylmethan-1-one, bis(2,4,6-trimethylbenzoyl)-phenylphosphinoxide, 2-methyl-1[4-(methylthio)phenyl]-2-morpholinopropan-1-one and bis(.etha.-5-2,4-cyclopentadien-1-yl)-bis(2,6-difluoro-3-(1H-pyrro-1-yl)-phenyl)titanium.

11. (Withdrawn) The method for fabricating an emissive plastic optical fiber according to claim 8, wherein the chain transfer agent is at least one compound selected from the group consisting of normal-butyl-mercaptan, lauryl mercaptan, octyl mercaptan, dodecyl mercaptan and 1-butanethiol.

12. (Withdrawn) A backlight unit for a liquid crystal display, comprising: a plurality of emissive plastic optical fibers having a constant length and arranged in intimate contact with each other in a line; and at least one light source disposed at one or both ends of the plastic optical fibers,

wherein each emissive plastic optical fiber comprises a core and a clad, the core and/or the clad being formed in an opaque phase by polymer phase separation.

13. (Withdrawn) The backlight unit for a liquid crystal display according to claim 12, wherein the emissive plastic optical fiber has a diameter of 0.001 μm ~ 10 cm.

14. (Withdrawn) The backlight unit for a liquid crystal display according to claim 12, where the light source is a white LED or cold cathode fluorescent tube.

15. (Withdrawn) A liquid crystal comprising the backlight unit according to claim 12.

16. (Withdrawn – Previously Presented) A backlight unit for a liquid crystal display comprising

a plurality of emissive plastic optical fibers, and at least one light source specially communicating with said optical fibers,

wherein each emissive plastic optical fiber comprises a core and a clad, at least one of the core and the clad being formed in an opaque phase by polymer phase separation.

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END OF CLAIM LISTING